

WHAT IS CLAIMED IS:

1. A method of screening to identify a compound that alters binding of an oligonucleotide to at least one viral component, said method comprising in separate reactions, contacting said oligonucleotide with said viral component in the presence and absence of a compound to be screened; and determining whether a difference occurs in binding of said oligonucleotide to said viral component in the presence of said compound compared to in the absence of said compound, the presence of said difference being indicative of said compound altering the binding of said oligonucleotide to said viral component.
2. The method of claim 1, wherein said compound is a small molecule.
3. The method of claim 1, wherein at least 1000 compounds are screened.
4. The method of claim 1, wherein at least 10,000 compounds are screened.
5. The method of claim 1, wherein said viral component is from a DNA virus.
6. The method of claim 1, wherein said viral component is from a RNA virus.
7. The method of claim 1, wherein said viral component is from HIV.
8. The method of claim 1, wherein said viral component is from HSV.
9. The method of claim 1, wherein said viral component is from RSV.
10. The method of claim 1, wherein said oligonucleotide is at least 2 nucleotides in length.
11. The method of claim 1, wherein said oligonucleotide is at least 5 nucleotides in length.
12. The method of claim 1, wherein said oligonucleotide is at least 10 nucleotides in length.

13. The method of claim 1, wherein said oligonucleotide is at least 15 nucleotides in length.
14. The method of claim 1, wherein said oligonucleotide is at least 20 nucleotides in length.
15. The method of claim 1, wherein said oligonucleotide is at least 30 nucleotides in length.
16. The method of claim 1, wherein said oligonucleotide is at least 40 nucleotides in length.
17. The method of claim 1, wherein said oligonucleotide is at least 80 nucleotides in length.
18. A novel antiviral compound identified by the method of claim 1.
19. A method for purifying oligonucleotides binding to at least one viral component from a pool of oligonucleotides comprising:
 - contacting said pool with at least one viral component;
 - displacing bound oligonucleotides of said pool from said component; and
 - collecting displaced oligonucleotides.
20. The method of claim 19, further comprising sequencing, and testing antiviral activity of collected displaced oligonucleotides.
21. The method of claim 19, wherein said viral component is bound to a solid phase medium.
22. The method of claim 20, wherein said displaced oligonucleotides are further chemically modified oligonucleotides.
23. A method for enriching oligonucleotides from a pool of oligonucleotides binding to at least one viral component, comprising:
 - contacting said pool with at least one viral component; and

amplifying oligonucleotides bound to said viral components to provide an enriched oligonucleotide pool.

24. The method of claim 23, wherein said contacting and amplifying are performed at least one additional time using said enriched oligonucleotide pool as the pool of oligonucleotides, thereby providing at least one further enriched oligonucleotide pool.
25. The method of claim 23, further comprising sequencing and testing antiviral activity of oligonucleotides in said enriched oligonucleotide pool.
26. The method of claim 24, further comprising sequencing and testing antiviral activity of oligonucleotides in at least one further enriched oligonucleotide pool.
27. The method of claim 23, wherein the oligonucleotides in said enriched oligonucleotide pool exhibit higher mean binding affinity with one or more of said viral components than the mean binding affinity of oligonucleotides in the initial pool of oligonucleotides.
28. The method of claim 26, wherein said oligonucleotides are further chemically modified.
29. The method of claim 23, further comprising selecting at least one oligonucleotide from said enriched oligonucleotide pool.
30. The method of claim 29, wherein said selecting comprises eliminating oligonucleotides from said enriched oligonucleotide pool having sequences identical to a sequence from the virus or viruses from which said viral components are derived.
31. An antiviral oligonucleotide preparation comprising one or more oligonucleotides identified using a method of claim 19 or 23, wherein said oligonucleotides in said oligonucleotide preparation exhibit higher mean binding affinity with one or more of said viral components than the mean binding affinity of oligonucleotides in the initial oligonucleotide pool.

32. The antiviral oligonucleotide preparation of claim 31, wherein the mean binding affinity of said oligonucleotides is at least two-fold greater than the mean binding affinity of oligonucleotides in the initial oligonucleotide pool.